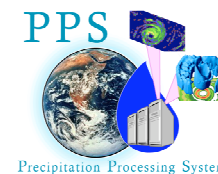
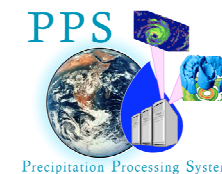




NASA Precipitation Processing System (PPS) Status



Erich Franz Stocker
November 6, 2006

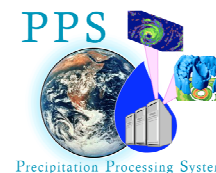


Festina Lente

Hasten, slowly



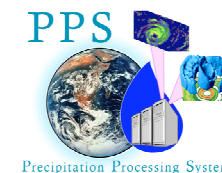
Reminder of Role -- PPS



- **The Precipitation Processing System (PPS) is a NASA prototype measurement based system**
 - For processing or managing NASA's desired precipitation data sets
 - For supporting NASA designated precipitation missions
 - For making NASA's designated precipitation data sets available to users
- **PPS is one of NASA's contributions to the Global Precipitation Measurement mission**
 - PPS will ingest GPM partner data
 - PPS will process mission data
 - PPS will distribute mission data
- **PPS is one of the data system elements that comprises the widely distributed GPM Data and Information System**



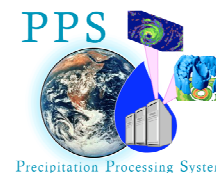
Support for PPS



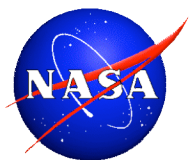
- **Support for PPS comes from three sources**
 - Budgetary
 - Technical
- **Precipitation Science (NASA program scientist)**
- **NASA Hq initiative for evolution of Earth Science data systems**
- **Global Precipitation Measurement program**



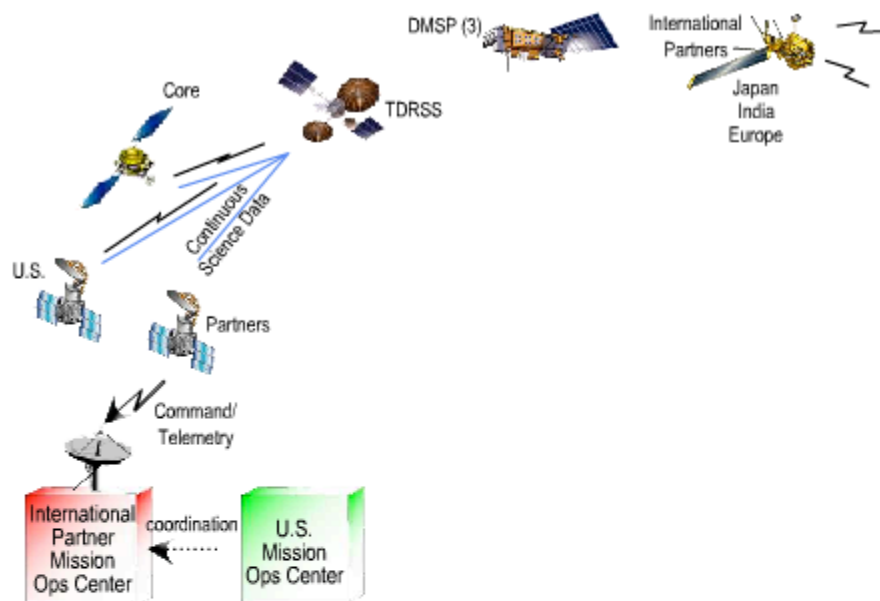
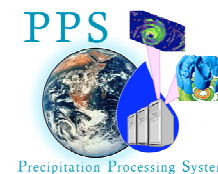
Changes Since Last Meeting



- **Funding re-phased based on GPM launch readiness date**
- **PPS readiness schedule re-phased to reflect changes in**
 - TRMM V7 reprocessing
 - GPM launch readiness date
- **PPS will be NASA's distribution center for users of precipitation data rather than GSFC DAAC**
- **Near-realtime swath data will be in 5 min rather than 10min granules to minimize delays in availability**
- **Availability requirements under review**
 - to deal with potential acquisition issues for MA access to TDRSS
 - to support a number of different scenarios for download
- **Change in GV approach reduced the role of PPS in GV activities**

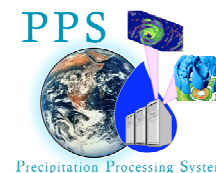


New Operations Concept





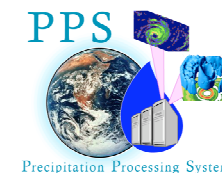
Accomplishments Since Last Meeting



- **Held PPS review for PPS Build 1**
 - Build 1 intended to assume TRMM data processing
 - Reviewers from:
 - Science team
 - NASA Hq
 - Japan
 - JAXA
 - NICT
- **Demonstrated PPS core management software able to run on**
 - Linux platforms
 - SGI Unix platforms
 - Windows XP
 - MAC under X-windows
- **Prototype GIS and Google Earth applications (GPM outreach)**
- **Prototype multiple radiometer processing (1C prototype)**



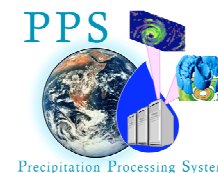
1C Prototype – (Multi-radiometer)



- **Develop and test a common logical structure that could be used for formatting a number of different radiometers**
 - Implemented for SSMI, SSMIS, TMI, AMSRE, WindSat
 - Demonstrated for MADRAS and FY radiometers
- **Develop and test**
 - File naming conventions
 - Inter-calibration version approaches
 - Reprocessing approach
 - PPS GPM toolkit
- **Inter-calibration software for radiometer data**
- **Interactions with GPM style Science Discipline Center**
 - Joint activity with Colorado State University
 - Joint responsibility for algorithm code
 - Joint responsibility for data production and distribution
- **1C Data available**
 - SSMI from Jan 1998
 - AMSRE
 - TMI
 - WindSat (roughly 4 months of 2006)



PPS--



- **A hybrid system that combines most of the PPS Build 1 but still has TRMM data system components**
 - TSDIS toolkit in use
 - DAAC is the distribution center for general users
- **PPS-- will**
 - Fully implemented ~Jan 2008 although some components earlier
 - Be a very early prototype of the GPM PPS in actual operation
 - Use AMD duo-core workstation based Scyld Beowulf cluster
 - Provide test of high-speed clustered file system and general purpose RAID
 - Hybrid processing environment
 - SGI for some Level 1A, 1B and 1C code
 - Linux (little-endian) for L2 and above
- **PPS-- for users**
 - Provide GPM style services to existing TRMM approved TSU
 - Provide online access to the world for TRMM data in gzipped format through anonymous ftp